

any meaningful way from the discredited results of the previous Hatfield model. As a result, Hatfield 3 apparently continues to reflect the fundamental biases of its supporters.

Contrary to the claims of some commenters, cost proxy models are not suitable for multiple purposes. USTA believes that actual cost data, as produced by cost studies, are far superior to the outputs of cost proxy models used for costing purposes.

Cost proxy models should not be relied on for developing costs for low-density areas. Among other things, the relatively large size of the Census Block Groups ("CBGs") used in some models in low-density service areas increases the likelihood that CBGs will be imprecisely assigned where the same CBG overlaps two or more wire center serving areas. Accordingly, USTA continues to recommend that the Commission establish a task force to evaluate the appropriateness of using models to estimate the costs of rural carriers.

Even those parties supporting the use of cost proxy models acknowledge that the complexity of the models undermines their practical use by state commissions and others seeking to develop cost estimates. Indeed, interested parties, including USTA members, have had difficulty in obtaining meaningful information from the newest versions of the models. In light of such problems, the use of cost proxy models as a pricing mechanism will waste valuable resources of both the Commission and the industry.

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	i
I. COST PROXY MODELS SHOULD BE USED ONLY FOR LIMITED PURPOSES, AND NOT FOR ESTABLISHING PRICES	1
II. THE DEFINITIONS OF FORWARD-LOOKING COSTS IN THE STAFF ANALYSIS AND SUPPORTED BY SOME COMMENTERS ARE INAPPROPRIATE FOR MAKING COST OR PRICING DECISIONS	2
III. THE COMMISSION SHOULD EMPHASIZE COMPETITION, NOT REGULATION, TO ENSURE EFFICIENT PRICING	5
IV. SERIOUS PROBLEMS WITH THE HATFIELD MODEL APPEAR TO PERSIST	6
V. COST PROXY MODELS SHOULD NOT BE USED FOR MULTIPLE PURPOSES	8
VI. ACTUAL COMPANY DATA IS THE BASIS FOR OUTPUT VERIFICATION AND MODEL VALIDATION	9
VII. PROXY MODELS ARE NOT ADEQUATE FOR DEVELOPING COSTS FOR LECS' LOW-DENSITY SERVICE AREAS	10
VIII. COST PROXY MODELS ARE TOO COMPLEX TO BE USEFUL FOR PRICING OR COSTING	11
IX. CONCLUSION	12

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)

The Use Of Computer Models)
For Estimating Forward-Looking)
Economic Costs)

A Staff Analysis)

CCB/CPD Docket No. 97-2

**REPLY COMMENTS OF THE
UNITED STATES TELEPHONE ASSOCIATION**

The United States Telephone Association ("USTA") respectfully replies to comments on the above-referenced analysis by members of the Commission's staff (the "Staff Analysis") of forward-looking cost models (so-called "cost proxy models").^{1/}

**I. COST PROXY MODELS SHOULD BE USED ONLY FOR LIMITED PURPOSES,
AND NOT FOR ESTABLISHING PRICES**

The comments filed in this proceeding highlight the validity of USTA's position, expressed in its initial comments, that cost proxy models are useful only for very limited

^{1/} See J. Atkinson, C. Barnekov, D. Konuch, W. Sharkey, and B. Wimmer, *The Use of Computer Models For Estimating Forward-Looking Economic Costs: A Staff Analysis* (rel. Jan. 9, 1997).

regulatory purposes -- at most, to assist in identifying high cost areas for purposes of distributing universal service funds.^{2/}

Parties have identified numerous difficulties with the use of cost proxy models for universal service support^{3/} as well as the pricing of unbundled network elements and access services.^{4/} These difficulties underscore the need for the Commission to rely on actual costs rather than the outputs of cost proxy models -- and the competitive process, rather than regulation -- for purposes of determining the costs and prices of services.

II. THE DEFINITIONS OF FORWARD-LOOKING COSTS IN THE STAFF ANALYSIS AND SUPPORTED BY SOME COMMENTERS ARE INAPPROPRIATE FOR MAKING COST OR PRICING DECISIONS

USTA and others have demonstrated that the definition in the Staff Analysis of forward-looking costs is an inappropriate basis for cost or pricing decisions, since it ignores the actual costs incurred by LECs pursuant to the obligations to which they are subject under regulation.^{5/} As a fundamental legal matter, commenters note that the Telecommunications

^{2/} See Comments of USTA in CCB/CPD Docket No. 97-2 (filed Feb. 18, 1997) ("USTA Comments") at 2, 6-8. Unless otherwise stated, parties' comments referenced herein were filed in CCB/CPD Docket No. 97-2 on or about February 18, 1997.

^{3/} See, e.g., Comments of Southwestern Bell Telephone Company ("Southwestern Bell Comments") at 5-6; Comments of GTE Service Corporation ("GTE Comments") at 29-33; Comments of BellSouth Corporation and BellSouth Telecommunications, Inc. ("BellSouth Comments") at 6-8.

^{4/} See, e.g., Comments of Pacific Bell ("Pacific Bell Comments") at 6-7; Comments of US West, Inc. ("US West Comments") at 7 ("Proxy cost models should not be used to set carrier prices because they do not really show carrier costs.").

^{5/} See USTA Comments at 9-11; Pacific Bell Comments at 9; BellSouth Comments at 7.

Act of 1996 (the "Telecommunications Act")^{6/} gives the Commission no authority to establish prices for unbundled network elements through cost proxy models.^{7/} Additionally, the U.S. Court of Appeals for the Eighth Circuit has stayed most of the Commission's pricing rules for such elements.^{8/}

Indeed, the Staff Analysis, by failing to recognize the need for incumbent LECs to recover their embedded costs, is at odds with Administration policy, which recognizes that costs legitimately incurred pursuant to regulatory obligations should be recovered.^{9/} Regulatory neglect of the right of incumbent LECs' to have an opportunity to recover these costs would be an unconstitutional taking of property if the Commission were to fail to permit an incumbent LEC to recover its total costs.^{10/}

^{6/} Pub. L. No. 104-104, 110 Stat. 56 (1996), *to be codified at* 47 U.S.C. §§ 151 *et seq.*

^{7/} See GTE Comments at 3.

^{8/} See *Iowa Utilities Board et al. v. FCC*, No. 96-3321 (8th Cir., Oct. 15, 1996), *partial stay lifted in part*, *Iowa Utilities Board et al. v. FCC*, No. 96-3321 (8th Cir., Nov. 1, 1996).

^{9/} See USTA Comments at 10-11; GTE Comments at 3, *citing Economic Report of the President* (Feb. 1997) at 204-205. As GTE points out, there is absolutely no evidence to support claims that incumbent LECs are inefficient or that their embedded investments were imprudently incurred. See GTE Comments at 27. Indeed, incumbent LECs' investments have been made to ensure that they successfully provide the high-quality, ubiquitous services that the public and regulators have come to expect.

^{10/} See Joint Comments of Bell Atlantic and NYNEX ("Bell Atlantic/NYNEX Comments") at 6-7. Incumbent LECs have a well-established constitutional right to the opportunity to earn a reasonable return on investment. See Southwestern Bell Comments at 9. MCI and AT&T, filing jointly, ignore this right by supporting the use in the Hatfield model of a cost of capital for LECs of 10.01 percent. See Comments of MCI Telecommunications Corporation and AT&T ("MCI/AT&T Comments") at n. 9. This is substantially too low, particularly in light of the Commission's recognition "as a theoretical matter" that the combination of significant sunk investment, declining technology cost, and competitive entry may increase the cost of capital and depreciation rates of incumbent LECs. See *Implementation of the Local*

(continued...)

Some supporters of cost proxy models seek to compound the errors of definition of forward-looking costs already in the Staff Analysis. For example, WorldCom's suggestions for nominally "improving" cost proxy models amount to a biased "wish list" of ways for regulators to benefit the competitors of incumbent local exchange carriers ("LECs") at the expense of the LECs themselves. Thus, even though WorldCom acknowledges the need for individualized treatment of different geographic areas, service providers, and market segments,^{11/} it also calls for models to develop estimates of the costs of hypothetical "efficiently configured competitors," rather than the incumbent carrier's aggregate costs.^{12/} In doing so, WorldCom ignores the actual costs that incumbent LECs have properly incurred under regulation and will continue to incur.

Similarly, MCI and AT&T, filing jointly, claim baldly that "[a]ny cost model should minimize cost."^{13/} In light of MCI/AT&T's support for using cost proxy models to set the prices of unbundled network elements and universal service support levels, this amounts to a plea for LECs to subsidize the services of their competitors while continuing to bear the burdens of providing universal service.^{14/} The report of Christensen Associates attached to USTA's initial comments in this proceeding demonstrates to the contrary that the costs that are

^{10/} (...continued)

Competition Provisions in the Telecommunications Act of 1996, First Report and Order, CC Docket No. 96-98, FCC 96-325 (rel. Aug. 8, 1996), at para. 686.

^{11/} See Comments of WorldCom, Inc. ("WorldCom Comments") at 2-3, 10-12.

^{12/} See *id.* at 5-9.

^{13/} See MCI/AT&T Comments at 13.

^{14/} Interestingly, neither WorldCom nor MCI/AT&T specifically advocates the use of cost proxy models for setting the prices of access services.

expected to be incurred by incumbent providers would provide a good benchmark to assess the forward-looking economic costs of telecommunications providers.^{15/} Strategic Policy Research, Inc., agreeing with the Christensen report, notes that in the real world, output is supplied using a mix of current and older technologies.^{16/}

III. THE COMMISSION SHOULD EMPHASIZE COMPETITION, NOT REGULATION, TO ENSURE EFFICIENT PRICING

The development of cost proxy models does not ensure that efficient pricing will be achieved.^{17/} For example, prices prescribed by models using arbitrary allocations of joint and common costs will not necessarily yield the same prices that would result from market forces.^{18/} If a cost proxy model is used to set prices and its estimates are in error, the development of a competitive market -- that is, a market that would ultimately enforce efficient prices -- will be distorted.^{19/}

USTA continues to believe that the considerable analytic and intellectual resources of the Commission staff should be focused on ways to rely on the market, not regulation by cost model, to determine prices for LEC services. WorldCom missed this vital point when it emphasized ways to make on-going adjustments to cost proxy models similar to those of the

^{15/} See *Appropriate Standards For Cost Models and Methodologies* (Christensen Associates, Feb. 1997), Attachment A to USTA Comments, at 11.

^{16/} Comments of Strategic Policy Research, Inc. ("SPR Comments") at 4.

^{17/} See US West Comments at 7; BellSouth Comments at 3.

^{18/} See Southwestern Bell Comments at 4.

^{19/} See GTE Comments at 7, 28-29.

price cap index in price cap regulation.^{20/} Rather than anticipating use of these models for an extended time, as WorldCom's "capped" proxy model seems to do, the Commission should be seeking ways to minimize reliance on regulation and allow the introduction of competitive forces. Similarly, in arguing that *any* proprietary data used in cost models "should be made available on the public record without proprietary protection,"^{21/} MCI/AT&T ignores the fact that at least some such data could be competitively sensitive and should be protected.

IV. SERIOUS PROBLEMS WITH THE HATFIELD MODEL APPEAR TO PERSIST

USTA members that have had an opportunity to review the recently-released Hatfield Model Release 3.0 ("Hatfield 3") found that it does not adequately address the significant problems with the previous Hatfield model, Version 2.2, Release 2. In fact, two thorough analyses of Hatfield 3 found that it retains "the core of the underlying problems"^{22/} and "all of the economic deficiencies"^{23/} of the previous Hatfield model.^{24/}

The NERA Paper notes that because the basic model structure has not changed, Hatfield 3 still does not fulfill the external or internal validity requirements of a cost model.^{25/} Indeed,

^{20/} See WorldCom Comments at 26-27.

^{21/} MCI/AT&T Comments at 12.

^{22/} See the following Attachment B to GTE Comments: INDETEC International, *Analysis of Hatfield Model 3.0* (the "INDETEC Paper") at 1.

^{23/} See the following Attachment A to GTE Comments: National Economic Research Associates, *Economic Evaluation of the Hatfield Model* (the "NERA Paper") at 72.

^{24/} See also US West Comments at 3-4.

^{25/} See NERA Paper at 73.

the results produced by Hatfield 3 for several non-BOC LECs did not differ significantly from the discredited results of the previous Hatfield model.^{26/} In addition, INDETEC's analysis indicates that Hatfield 3 does little to address the previous model's problematic features virtually designed to underestimate costs, including invalid structure sharing, loop length, and switching cost assumptions.^{27/}

Hatfield 3 -- like its predecessors -- continues to provide evidence of the fundamental biases of its supporters. According to US West, the various Hatfield models were designed from the start to prove that prices for access to unbundled network elements should be as low as possible.^{28/} As US West points out, "a reasonable test of the essential neutrality (or lack thereof) of Hatfield would be to see what prices/costs Hatfield would predict for AT&T and MCI."^{29/} As US West further observes, however, AT&T and MCI "have been absolutely intransigent in their refusal to permit such an analysis to be conducted."^{30/}

The INDETEC Paper states that Hatfield 3 is comprised of three different software programs.^{31/} Its algorithms are spread among several Excel spreadsheets reacting to data

^{26/} See NERA Paper at 5, 73.

^{27/} See INDETEC Paper at 1-3.

^{28/} See US West Comments at 3-4.

^{29/} US West Comments at 4. Indeed, according to US West, if the Hatfield model is appropriate for calculating the forward-looking cost of providing telecommunications services, "it should properly predict AT&T's and MCI's costs as well." *Id.*

^{30/} US West Comments at 5.

^{31/} See INDETEC Paper at 1.

derived from an Access database, which itself runs behind a Visual Basic front end.^{32/}

INDETEC notes that these programs "are used in combination in a manner which makes the model difficult to understand."^{33/} Consistent with INDETEC's findings in this regard, several small and rural USTA members have attempted to run Hatfield 3 and have been unable to do so successfully, for a variety of technical and structural reasons. As a result, Hatfield 3 does not appear to be suitable for any purpose applicable to such incumbent LECs. Clearly, there is a basic fairness issue in using a model that these small carriers do not even have the wherewithall to operate.

V. COST PROXY MODELS SHOULD NOT BE USED FOR MULTIPLE PURPOSES

MCI/AT&T argues that there is no significant difference between a network built for universal service purposes and unbundled network elements, implying that the Hatfield model is suitable for multiple purposes.^{34/} As USTA and others have shown, there are serious methodological problems in such multi-purpose use.^{35/} Among other things, the costs shared by unbundled network elements are different from those shared by services or are not shared

^{32/} See *id.* at 3.

^{33/} *Id.* at 1.

^{34/} See MCI/AT&T Comments at 8-10.

^{35/} See USTA Comments at 12; GTE Comments at 34-35; US West Comments at 7.

in the same proportions. Moreover, a network that is designed to be optimally efficient for one purpose may not be optimal for another.^{36/}

VI. ACTUAL COMPANY DATA IS THE BASIS FOR OUTPUT VERIFICATION AND MODEL VALIDATION

MCI/AT&T discusses at some length ways to verify the level of network investment predicted by the models.^{37/} USTA believes that actual cost data, as produced by LEC cost studies, are the best way to verify any such model.^{38/} Indeed, such data are far superior to the outputs of models used for costing purposes. As one commenter has noted, "[t]o substitute the specificity of existing cost studies with the projections of proxy models is to turn the search for accuracy on its head."^{39/}

Of course, USTA has emphasized the importance of validating any costing methodology, particularly such methodology's input assumptions.^{40/} In addition, an engineering assessment must be used to determine a model's accuracy in describing an actual,

^{36/} See GTE Comments at 34. USTA thus disagrees with Sprint's contention that one cost proxy model "with sufficient flexibility" could be used in developing rules for access reform, interconnection, and universal service. See Comments of Sprint Corporation ("Sprint Comments") at i, 21.

^{37/} See MCI/AT&T Comments at 10-12.

^{38/} Sprint notes that "[c]ompany-specific cost factors are not only appropriate but required for statutorily correct pricing of unbundled network elements for interconnection." See Comments of Sprint Corporation ("Sprint Comments") at 6. USTA submits that actual cost data are preferred.

^{39/} Pacific Bell Comments at 6.

^{40/} See USTA Comments at 19.

efficient network. Such an assessment has already demonstrated the weaknesses of an earlier version of the Hatfield model.^{41/}

VII. PROXY MODELS ARE NOT ADEQUATE FOR DEVELOPING COSTS FOR LECS' LOW-DENSITY SERVICE AREAS

Proxy models have serious difficulties in modeling LECs' network costs in low-density service areas. As a result, regulators should not rely on them for developing costs for such areas. The reasons for these deficiencies are clear. For models that are based on Census Block Groups ("CBGs"), the relatively large size of such CBGs in low-density service areas heightens the likelihood that CBGs will be imprecisely assigned where the same CBG overlaps two or more wire center serving areas.^{42/} Moreover, rural LECs that serve such areas generally do not have the economies of scale and scope assumed by proxy models for non-rural carriers.^{43/} Accordingly, USTA continues to recommend that the Commission establish a task force under Joint Board auspices to evaluate the appropriateness of any such model for rural carriers and to make recommendations concerning whether the model chosen for non-rural companies (or any other model) can be used for rural companies.

^{41/} See USTA Comments at 14, citing Price Technical Services, Inc. and Austin Communications Education Services, Inc., *Engineering Evaluation of Cost Proxy Models for Determining Universal Service Support: Hatfield Model 2.2, Release 2*, ex parte filing of USTA, CC Docket No. 95-45 (Feb. 5, 1997).

^{42/} See GTE Comments at 43-45, citing INDETEC Paper at 5-6 and App. H. Although MCI/AT&T claims that improvements have been made in Hatfield 3's assignment of CBGs to wire centers, see MCI/AT&T comments at 6, GTE's analysis indicates that substantial problems persist.

^{43/} See Comments of Pacific Telecom, Inc. at 3.

VIII. COST PROXY MODELS ARE TOO COMPLEX TO BE USEFUL FOR PRICING OR COSTING

In addition to the fundamental issues discussed above, USTA and others have discussed the technical difficulties of using cost proxy models as envisioned by the Staff Analysis.^{44/} WorldCom acknowledges that the existing cost proxy models are "still so complex that it is questionable how useful they are to state commissions and others who seek to develop cost estimates."^{45/} MCI/AT&T notes that greater precision in estimating the cost of a network is "bought at the price of greater complexity and computational needs of the model."^{46/} Interested parties have had difficulty in obtaining meaningful information from the newest versions of the models,^{47/} and the limitations of earlier versions of the models are well-known.^{48/} USTA believes that in light of these complexities, the Commission staff's interest in the use of cost proxy models as a pricing mechanism is misplaced and will result in the waste of valuable resources by both the Commission and the industry.

^{44/} USTA Comments at 17.

^{45/} WorldCom Comments at 28.

^{46/} MCI/AT&T Comments at 13.

^{47/} See, e.g., WorldCom Comments at 37. As noted above, several USTA members have been unable to operate the newest versions of the models in a way that would even permit them to evaluate model outputs for their service areas.

^{48/} See USTA Comments at 13-15; US West Comments at 3-5.

IX. CONCLUSION

Wherefore, USTA respectfully requests that the Commission staff take action consistent with USTA's initial comments and these reply comments.

Respectfully submitted,

UNITED STATES TELEPHONE ASSOCIATION

By: Hance Haney

Mary McDermott

Linda Kent

Keith Townsend

Hance Haney

Its Attorneys

U.S. Telephone Association

1401 H Street, N.W.

Suite 600

Washington, D.C. 20005

(202) 326-7249

February 24, 1997

CERTIFICATE OF SERVICE

I, David L. Anderson, do certify that on February 24, 1997 Reply Comments of the United States Telephone Association were either hand-delivered, or deposited in the U.S. Mail, first-class, postage prepaid to the persons on the attached service list.



David L. Anderson

David N. Porter
WorldCom, Inc.
3000 K St., NW
Suite 300
Washington, DC 20007

Robert B. McKenna
US WEST, Inc.
Suite 700
1020 19th St., NW
Washington, DC 20036

Robert Sutherland
BellSouth Corp.
Suite 1700
1155 Peachtree St., NE
Atlanta, Georgia 30309-3610

Joseph Di Bella
NYNEX
1300 I St., NW
Suite 400 West
Washington, DC 20005

Gary M. Epstein
Pacific Telecom, Inc.
LATHAM & WATKINS
1001 Pennsylvania Ave., NW
Washington, DC 20004

Robert M. Lynch
SWBT
Once Bell Center
Suite 3524
St. Louis, MO 63101

Marlin D. Ard
Pacific Bell's
140 Montgomery St.
Room 1522A
San Francisco, CA 94105

Margaret E. Garber
Pacific Bell's
1275 Pennsylvania Ave., NW
Washington, DC 20004

Jay C. Keithley
Sprint Corp.
1850 M St., NW
Suite 1100
Washington, DC 20036

Chris Frentrup
MCI Telecomm. Corp.
1801 Pennsylvania Ave., NW
Washington, DC 20036

Richard N. Clarke
AT&T
295 N. Maple Ave. Rm. 5462C2
Basking Ridge, NJ 07920

Lawrence W. Katz
Bell Atlantic
1320 N. Court House Rd.
8th Floor
Arlington, VA 22201

Richard McKenna, HQEO3J36
GTE Service Corp.
P.O. Box 152092
Irving, TX 75015-2092

Gail L. Polivy
GTE
1850 M St., NW
Suite 1200
Washington, DC 20036

Vicki Oswalt
Texas PUC
1701 N. Congress Ave.
P.O. Box 13326
Austin, TX 78711-3326

David Cosson
Pamela S. Fusting
The Rural Telephone Coalition
NTCA
2626 Pennsylvania Ave., NW
Washington, DC 20037

Margot Smiley Humphrey
The Rural Telephone Coalition
NRTA
1150 Connecticut Ave., NW
Suite 1000
Washington, DC 20036

Lisa M. Zaina
The Rural Telephone Coalition
OPASTCO
21 Dupont Circle, NW
Suite 700
Washington, DC 20036